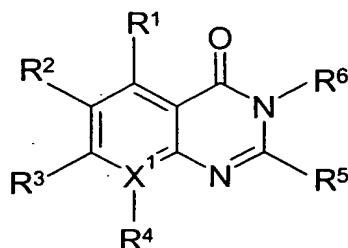


5 What is claimed is:

1. A compound having the chemical formula:



wherein:

10 R^1 , R^2 and R^3 is each independently selected from one of: H, halogen, CN, CF_3 , OCF_3 , lower alkyl, lower alkoxy, NH-acetyl, NH-lower alky, NH-alkylaryl; $N(\text{lower alkyl})_2$, $C(O)OH$, $C(O)O\text{-lower alkyl}$, $C(O)NH\text{-lower alkyl}$, $C(O)N(\text{lower alkyl})_2$, OH, $OC(O)\text{-lower alkyl}$, $OC(O)\text{-lower alkyalamino}$, $OC(O)\text{-lower alkyl-}$
 $N(\text{lower alkyl})_2$, and $OP(O)(OH)_2$;

15 R^4 is optional and may be selected from one of: H, halogen, CN, CF_3 , OCF_3 , lower alkyl, lower alkoxy, NH-acetyl, NH-lower alky, NH-alkylaryl, $N(\text{lower alkyl})_2$, $C(O)OH$, $C(O)O\text{-lower alkyl}$, $C(O)NH\text{-lower alkyl}$, $C(O)N(\text{lower alkyl})_2$, OH, $OC(O)\text{-lower alkyl}$, $OC(O)\text{-lower alkyalamino}$, $OC(O)\text{-lower alkyl-N}(\text{lower alkyl})_2$, and $OP(O)(OH)_2$;

20 X^1 is selected from one of C and N,

R^5 is selected from one of: H lower alkyl, a furyl, thienyl, styryl, pyridyl and phenyl group optionally substituted with 1 to 3 substituents selected from one of H, halogen, CN, CF_3 , OCF_3 , lower alkyl, NH-alkylaryl, $N(\text{lower alkyl})_2$, lower alkoxy, OH, $OC(O)\text{-lower alkyl}$, $OC(O)\text{-lower alkyalamino}$, $OC(O)\text{-lower alkyl-N}(\text{lower alkyl})_2$, and $OP(O)(OH)_2$;

25 R^6 is selected from one of: H, lower alkyl, and a group comprising $-(CH_2)_n-$ X^2-R^7 wherein n is 0, 1, or 2, X^2 is O, $C(O)$, $CH(OH)$, lower alkyl or a single bond, and

R^7 is an aromatic group optionally substituted with 1 to 3 substituents
30 selected from one of: H, halogen, CN, CF_3 , OCF_3 , lower alkyl, lower alkoxy, NH-

- 5 lower alkyl, NH-alkylaryl, N(lower alkyl)₂, OH, OC(O)-lower alkyl, OC(O)-lower
alkylamino, OC(O)-lower alkyl-N(lower alkyl)₂, and OP(O)(OH)₂;
or a pharmaceutically acceptable salt or complex thereof.
2. A compound according to claim 1, wherein R¹, R², R³, and R⁴ are independently
10 selected from one of hydrogen, halogen, lower alkyl, OH and OP(O)(OH)₂.
3. A compound according to claim 2, wherein said halogen is selected from one of
fluorine and chlorine.
- 15 4. A compound according to claim 2, wherein lower alkyl is methyl.
5. A compound according to claim 2 wherein, R¹ is selected from one of hydrogen
and methyl.
- 20 6. A compound according to claim 2, wherein R² is selected from one of hydrogen,
fluorine, chlorine, hydroxy, and methyl.
7. A compound according to claim 2, wherein R³ is selected from one of hydrogen
and chlorine.
- 25 8. A compound according to claim 2, wherein R⁴ is selected from one of hydrogen,
hydroxy, and methyl.
9. A compound according to claim 1, wherein X¹ is carbon.
- 30 10. A compound according to claim 1, wherein R⁵ is phenyl optionally substituted
with 1 or 2 hydroxy.
11. A compound according to claim 1, wherein R⁶ further comprises the group –
35 (CH₂)_n-X²-R⁷;
wherein n is 1 or 2;

5 X^2 is a single bond, and
 R^7 is phenyl optionally substituted with 1 or 2 halogens.

12. A compound according to claim 11, wherein n is 2 and said halogens are
 selected from one of fluorine and chlorine.

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13. A pharmaceutical composition comprising a compound according to claim 1 and
 pharmaceutically acceptable diluent or excipient.

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14. A method of treating disease or disorder characterized by abnormal bone or
 mineral homeostasis which comprises the administration to a subject in need of
 treatment thereof an effective amount of a compound according to claim 1.

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15. A method according to claim 14, wherein the bone or mineral disorder is
 selected from one of osteosarcoma, periodontal disease, fracture healing,
 osteoarthritis, rheumatoid arthritis, Paget's disease, humoral hypercalcemia
 malignancy, and osteoporosis.

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16. A method according to claim 14, wherein the bone or mineral disease or disorder
 is osteoporosis.

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17. A method of increasing serum parathyroid hormone levels in mammals, which
 comprises the administration to a subject in need of treatment thereof an
 effective amount of a compound according to claim 1.

18. A method for preparing 2,3,5,6,7,8-substituted 3*H*-quinazolin-4-ones by reacting
 2,4,5,6,7,8-substituted benzo[*d*][1,3]oxazin-4-ones with primary amines under
 microwave irradiation conditions.

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19. The compound according to claim 1, wherein compound is selected from one of:
 2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;
 2-(2,5-dihydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;

- 5 2-(3-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;
2-(2-hydroxy-phenyl)-3-(2-phenoxy-ethyl)-3*H*-quinazolin-4-one;
3-[2-(4-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
10 3-[2-(3-chloro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
3-[2-(2-chloro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
2-(2-hydroxy-phenyl)-3-[2-(4-methoxy-phenyl)-ethyl]-3*H*-quinazolin-4-one;
2-(2-hydroxy-phenyl)-3-(2-*p*-tolyl-ethyl)-3*H*-quinazolin-4-one;
2-(2-hydroxy-phenyl)-6-methyl-3-phenethyl-3*H*-quinazolin-4-one;
15 6-fluoro-2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;
6-chloro-2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;
2-(2-hydroxy-phenyl)-3-phenethyl-5-phenethylamino-3*H*-quinazolin-4-one;
2-(2-hydroxy-phenyl)-5-methyl-3-phenethyl-3*H*-quinazolin-4-one;
7-chloro-2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;
20 2-(2-hydroxy-phenyl)-8-methyl-3-phenethyl-3*H*-quinazolin-4-one;
6-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
6-fluoro-3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
7-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-5-methyl-3*H*-quinazolin-4-one;
25 3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-5-methyl-3*H*-quinazolin-4-one;
3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-6-methyl-3*H*-quinazolin-4-one;
3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-6-methyl-3*H*-quinazolin-4-one;
6-chloro-3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
6-chloro-3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
30 3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-6-methoxy-3*H*-quinazolin-4-one;
3-[2-(3-fluoro-phenyl)-ethyl]-6-hydroxy-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one; acetic acid 2-{6-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-4-oxo-3,4-dihydro-quinazolin-2-yl}-phenyl ester;

- 5 3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-8-methoxy-3*H*-quinazolin-4-one, isobutyric acid 2-{6-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-4-oxo-3,4-dihydro-quinazolin-2-yl}-phenyl ester;
sodium salt of 6-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
- 10 8-chloro-2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;
7-chloro-3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
7-chloro-3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
2-(2-hydroxy-phenyl)-3-(2-pyridin-3-yl-ethyl)-3*H*-quinazolin-4-one;
6-fluoro-2-(2-hydroxy-phenyl)-3-(2-pyridin-3-yl-ethyl)-3*H*-quinazolin-4-one;
- 15 2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-pyrido[2,3-*d*]pyrimidin-4-one;
3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-pyrido[2,3-*d*]pyrimidin-4-one;
3-(1,1-dimethyl-3-phenyl-propyl)-6-fluoro-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
- 20 methylamino-acetic acid 2-{6-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-4-oxo-3,4-dihydro-quinazolin-2-yl}-phenyl ester hydrochloride;
6-fluoro-2-(2-hydroxy-phenyl)-3-(2-phenyl-propyl)-3*H*-quinazolin-4-one;
6-fluoro-2-(2-hydroxy-phenyl)-3-(*R*-2-phenyl-propyl)-3*H*-quinazolin-4-one;
6-fluoro-2-(2-hydroxy-phenyl)-3-(*S*-2-phenyl-propyl)-3*H*-quinazolin-4-one; and
- 25 6-fluoro-2-(2-hydroxy-phenyl)-3-(3-phenyl-propyl)-3*H*-quinazolin-4-one.

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